

PUB-NO: DE003150290A1

DOCUMENT-IDENTIFIER: DE 3150290 A1

TITLE: Propellent charge powder with a smoothing surface  
coating

PUBN-DATE: June 30, 1983

INVENTOR-INFORMATION:

NAME	COUNTRY
STOCKMANN, GREGOR DIPL ING	DE
KNIES, WOLFGANG DR	DE

ASSIGNEE-INFORMATION:

NAME	COUNTRY
NITROCHEMIE GMBH	DE

APPL-NO: DE03150290

APPL-DATE: December 18, 1981

PRIORITY-DATA: DE03150290A ( December 18, 1981)

INT-CL (IPC): C06D005/00, C06B023/00

EUR-CL (EPC): C06B023/04

US-CL-CURRENT: 149/11

ABSTRACT:

CHG DATE=19990617 STATUS=O> The particles of a single-base or multi-base propellant charge powder for ammunition are coated with a titanium chelate complex, for example titanium acetylacetonate. The coating is effected by spraying with the dissolved titanium chelate complex and subsequently moving the propellant charge powder at an elevated temperature. As a result of the coating, the bulk density of the propellant charge powder is markedly increased over that of a propellant charge powder surface-treated only with graphite. In addition, the coating also has an effect inhibiting barrel erosion and, in the case of multi-base propellant charge powders, an effect inhibiting exudation. The proportion by weight of the titanium chelate complex is about 2% by weight, relative to the uncoated propellant charge powder.

DERWENT-ACC-NO: 1997-044384

DERWENT-WEEK: 199705

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TITLE: Firearm barrel cleaning tool acting as bullet - has  
cleaning plug with plastic wool felt section at front and  
oil paper section at rear and is inserted into front end  
of cartridge shell

PATENT-ASSIGNEE: BECKER F[BECKI]

PRIORITY-DATA: 1996DE-2018429 (October 22, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
MAIN-IPC			
DE 29618429 U1	December 19, 1996	N/A	010
F42B 005/24			

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
DE 29618429U1	N/A	1996DE-2018429
October 22, 1996		

INT-CL (IPC): F41C027/00, F42B005/02 , F42B005/24

ABSTRACTED-PUB-NO: DE 29618429U

BASIC-ABSTRACT:

A cleaning tool for a firearm barrel is fired like a bullet and comprises  
a

cartridge shell (2) with an igniter (28) and an elastic cleaning plug (6) of a dia. corresponding to the barrel. The cleaning plug (6) is inserted into the shell (2) like a bullet.

USE - The cleaning tool can be used for various firearms, e.g. pistols, rifles or anti-aircraft guns.

ADVANTAGE - The tool can easily be carried by the gun user, is simple to use by merely inserting in the gun and firing and is inexpensive to produce.

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS: FIREARM BARREL CLEAN TOOL ACT BULLET  
CLEAN PLUG PLASTIC WOOL FELT  
SECTION FRONT OIL PAPER SECTION REAR INSERT  
FRONT END CARTRIDGE  
SHELL

DERWENT-CLASS: A95 K03 Q79

CPI-CODES: A12-H; A12-T03D1; K03-A02;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; P1887 P0248 P0226 D01 D10 D11 F24 ; S9999 S1183  
S1161 S1070  
; S9999 S1070\*R

Polymer Index [1.2]

018 ; ND01 ; K9416 ; Q9999 Q7034\*R ; Q9999 Q6779 ; Q9999  
Q9438 ;  
Q9999 Q9109 Q9052

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-014227  
Non-CPI Secondary Accession Numbers: N1997-036841

DERWENT-ACC-NO: 2001-484327

DERWENT-WEEK: 200153

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TITLE: Antiwear additive for firearm propellants comprises  
at

least one metal or metal oxide in the form of a powder  
with a submicron particle size

INVENTOR: BRUNET, L; ESPAGNACQ, A ;  
FORICHON-CHAUMET, N ; FORICHON, C N

PATENT-ASSIGNEE: GIAT IND[GIATN] , GIAT IND SA[GIATN]

PRIORITY-DATA: 1999FR-0016436 (December 23, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
MAIN-IPC			
EP 1110927 A1	June 27, 2001	F	010
C06B 023/04			
FR 2802918 A1	June 29, 2001	N/A	000
C06B 023/00			

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR  
IE IT LI LT LU LV MC MK  
NL PT RO SE SI TR

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
EP 1110927A1	N/A	2000EP-0403669
December 22, 2000		

FR 2802918A1      N/A  
December 23, 1999

1999FR-0016436

INT-CL (IPC): C06B023/00, C06B023/04 , C06D005/00 ,  
F42B005/192 ,  
F42B005/24

ABSTRACTED-PUB-NO: EP 1110927A

BASIC-ABSTRACT:

NOVELTY - Antiwear additive (I) for firearm propellants comprises at least one metal and/or metal oxide in the form of a powder with a particle size of less than 1  $\mu$  m.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a combustible munitions object, especially a combustible cartridge case, containing (I);
- (2) a propellant containing 1-20 wt.% of an energetic additive comprising titanium or aluminum powder with a particle size of less than 1  $\mu$  m.

USE - (I) is useful for reducing radial wear in gun barrels.

ADVANTAGE - Barrel wear is reduced without impairing the ballistic performance of the propellant, and performance can actually be improved if (I) is a titanium or aluminum powder.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: ANTIWEAR ADDITIVE FIREARM PROPELLANT  
COMPRISE ONE METAL METAL  
OXIDE FORM POWDER SUBMICRON PARTICLE SIZE

DERWENT-CLASS: A95 E37 K04 Q79

CPI-CODES: A12-T03C; A12-T03D; E33; E34; E35; E35-K02;  
E35-Q; K04-C01;

CHEMICAL-CODES:

Chemical Indexing M3 \*01\*

Fragmentation Code

A422 A940 C108 C550 C730 C801 C802 C803 C804 C805  
C807 M411 M781 M782 M904 M905 M910 Q130 R036

Specific Compounds

01966K 01966M 01966U

Registry Numbers

1966U

Chemical Indexing M3 \*02\*

Fragmentation Code

A674 A940 C108 C550 C730 C801 C802 C803 C804 C805  
C807 M411 M781 M782 M904 M905 M910 Q130 R036

Specific Compounds

01522K 01522M 01522U

Registry Numbers

1522U

Chemical Indexing M3 \*03\*

Fragmentation Code

A940 C108 C550 C730 C801 C802 C803 C804 C805 C807  
M411 M781 M782 M904 M905 Q130 R036

Markush Compounds

200045-44801-K 200045-44801-M 200045-44801-U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1522U; 1966U

ENHANCED-POLYMER-INDEXING:



Polymer Index [1.1]

018 ; S9999 S1309\*R ; P1592\*R F77 D01

Polymer Index [1.2]

018 ; R00326 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53  
D58 D82 ;

S9999 S1376 ; H0000 ; P1150 ; P1161

Polymer Index [1.3]

018 ; R01852\*R G3634 D01 D03 D11 D10 D23 D22 D31 D42 D50  
D76 D86

F24 F29 F26 F34 H0293 P0599 G3623 ; R01854 G3645 G3634  
D01 D03 D11

D10 D23 D22 D31 D42 D50 D63 D76 F24 F34 F41 H0293 P0599  
G3623 ;

R01861 G3656 G3645 G3634 D01 D03 D11 D10 D23 D22 D31  
D42 D50 D63

D76 D86 F24 N\* 5A O\* 6A H0293 P0599 G3623

Polymer Index [1.4]

018 ; G0806 G0022 D01 D51 D53 D12 D10 D58 N\* 5A O\* 6A D82  
; H0000

Polymer Index [1.5]

018 ; G1581 G1558 D01 F47 D23 D22 D31 D73 D42 D11 D10  
F14 D83 D50

; H0000 ; P0055 ; P0964\*R F34 D01

Polymer Index [1.6]

018 ; ND01 ; Q9999 Q9438 ; Q9999 Q8844 ; Q9999 Q6779

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-145375

Non-CPI Secondary Accession Numbers: N2001-358513